

Tasks T1 – T7 carry 3 points each

T1. **Pyramid of coins**

Emil has 6 coins.







He laid them on top of each other on the table and made a shape looking like pyramid out of them.



Question / Challenge

Which coin was the fourth one which Emil laid on the table?





- A)  B)  C)  D) 

T2. **Dancing Dolls**

A dress-maker had to make dresses for four dolls.
Each dress should be made from four different materials.

Question / Challenge

Which of the dolls is wearing a dress that is NOT made of four different materials?

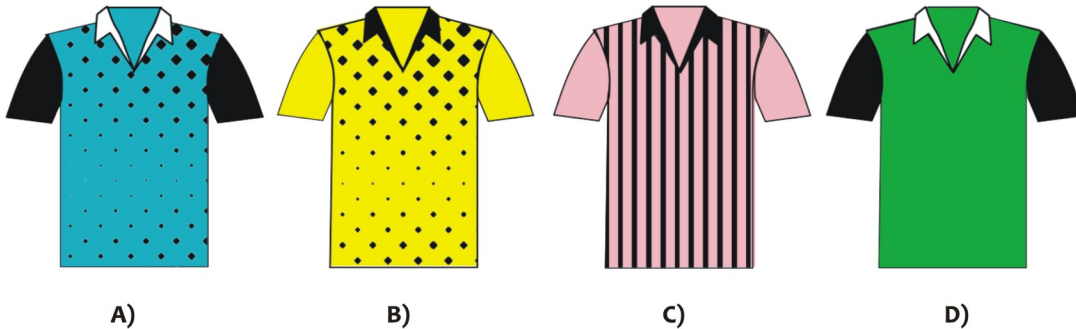
- A)  B)  C)  D) 

T3. Football jerseys

Áine is packing her bag for a football match. She needs to pack the jersey which has bright sleeves, and a black collar. It does not have stripes.

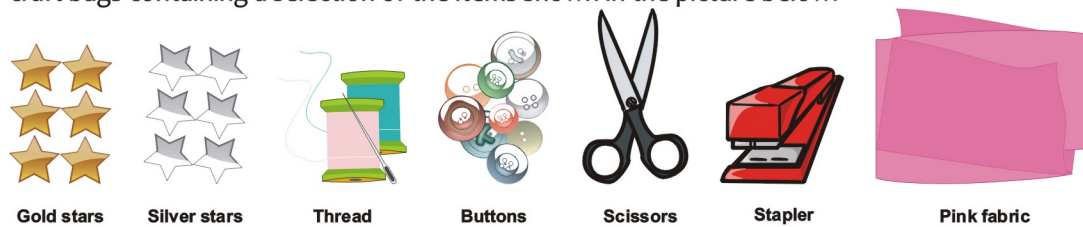
Question / Challenge

Which jersey should Áine pack?



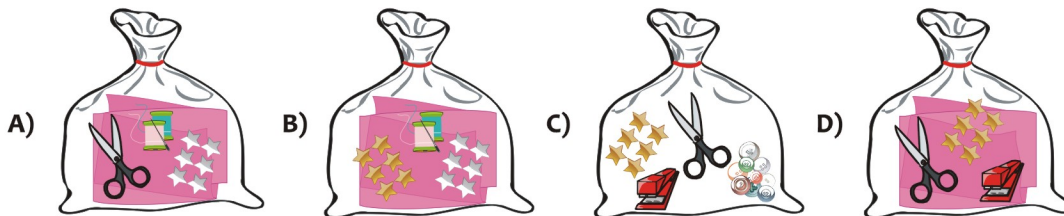
T4. Dancing dress

Zuri needs to make a dress for her Irish dancing competition. She goes to a shop that sells craft bags containing a selection of the items shown in the picture below.



Question / Challenge

Zuri needs pink fabric, scissors, and gold stars to make the dress. Which of the following bags should she buy?



T5. Restless numbers

The numbers from 0 to 9 have to form an ascending sequence. The initial string is the following:



Question / Challenge

How many numbers are not in the correct position?

- A) 1 B) 3 C) 4 D) all the numbers are in the correct position

T6. Friends

The following image is a photo of Michael's friends.



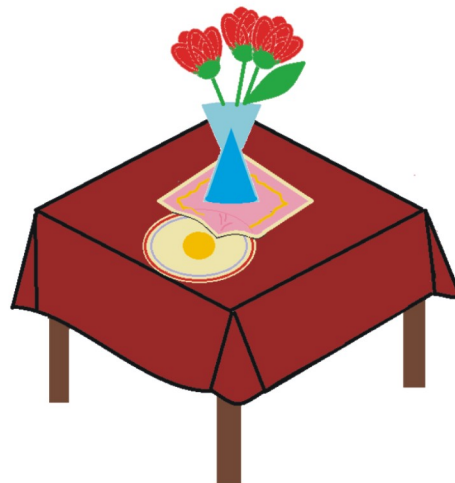
Question / Challenge

How many of the children in the picture have their left hand raised and are not girls?

- A) 1 B) 2 C) 3 D) 4

T7. Setting the table

My little sister Ann set the table as shown in the following image.



Question / Challenge

What is the order of the objects that Ann put on the table from the one placed first to the one placed last?

- A) , , , C) , , ,
- B) , , , D) , , ,

Tasks T8 – T14 carry 4 points each

T8. Go To The Market

With the holidays approaching, Ana, Barnie, Chloe and Derrick are planning a party for their family. They need to go to the market to buy food for their guests.

They need to buy the following items:

- 4 kg assorted fruit
- 1 kg spinach
- 2 kg sugar
- 3 kg chicken
- 2 kg beef
- 3 kg fish
- 5 kg rice
- 1 kg eggs



Each type of food is placed in a different basket. Each beaver can only carry two baskets at a time — one in each hand. Barnie is the strongest beaver and can carry 8kg of food items. Ana and Derrick can both carry 5kg of food while Chloe can only carry 3kg of food.



Question / Challenge

In order to carry all the food home in a single trip, which items will Barnie carry?

- A) 3kg fruit + 1kg spinach or 1kg eggs
- B) 5kg rice + 3kg chicken or 3kg fish
- C) 2kg beef or 1kg sugar + 3kg chicken
- D) 3kg fish or 1kg sugar + 3kg fruit

T9. Necklaces

Beavers ANNA, BELLA and LENA made necklaces according to their names. To represent each letter, they agreed on a way to thread beads and . Also, they agreed to separate the letters in the necklaces with beads .



Question / Challenge

Which necklace did LENA make?

- A)
- B)
- C)
- D)

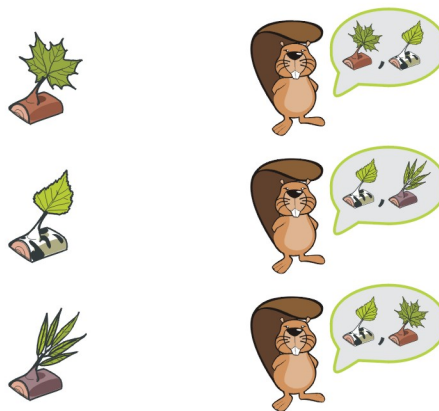
T10. Preferences

The beaver family has three gifts for their young beavers, one gift for each. Each young beaver tells, which gift they prefer first-place, and which one they prefer second-place.

The family wants to assign the gifts in the best way: They want to satisfy as many first-place preferences as possible, and then as many second-place preferences as possible.

Question / Challenge

See the gifts on the left, and the young beavers and their preferences on the right. How many young beavers will receive their first-place preferred gift?



- A) 0 B) 1 C) 2 D) 3

T11. Circular Beaver

A little beaver has drawn a picture of his mother on a computer.



Question / Challenge

At least how many circles did she use to draw the picture?

- A) 12 B) 15 C) 16 D) 17

T12. Birds Song



A bear living in a cave in Beaverland predicts weather each morning by listening to the sounds of three birds (Owl – O, Sparrow – S and Kingfisher – F) living nearby. If all three following conditions hold, the bear believes that the weather will be good and will come out of the cave. Otherwise the bear will stay in the cave.

Conditions for good weather:

1. All three birds sing at least one sound.
2. The owl sings exactly one sound.
3. The sparrow sings at least two sounds in a row.

Question / Challenge

Which of the following sequences of bird sounds will make the bear come out of the cave?

- A) S-F-O-F-F-S-F B) S-S-S-O-S-S-S C) F-S-O-S-S-F-F D) S-F-O-S-S-O-F

T13. Puzzle

Ana has 4 puzzle pieces.



Question / Challenge

What will the solved puzzle look like?

- A) B)
- C) D)

T14. Password

Beavers have a special way to send messages. They use the following table to change the characters into numbers and then they send the numbers to each other:

A	B	C	D	E	F	G	H	I	J
65	66	67	68	69	70	71	72	73	74

If a beaver would like to send “HI” to his friend, he will send him “72.73”.

Question / Challenge

If a beaver sends “72.73 74.69.70.70” to his friend, what is his friend’s name?

A) JACE

B) JEFF

C) JADA

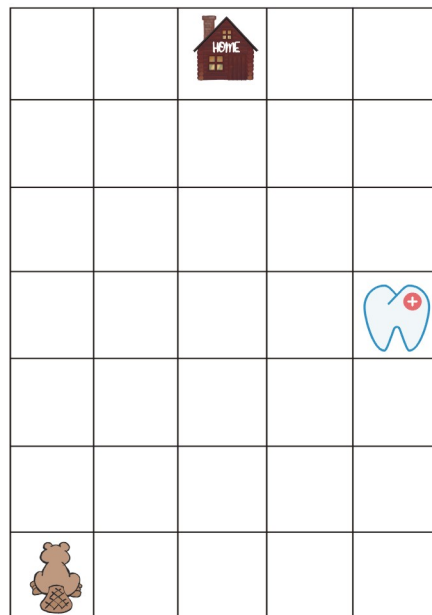
D) JEDI

Tasks T15 – T21 carry 5 points each

T15. Dentist

The Beaver is heading home, but he also has an appointment at the dentist, so he wants to go to the dentist first, and then home.

Due to some safety rules in his town, he can only do two movements: go straight or turn right.



Question / Challenge

Is it possible to reach the goal by following these movement rules?

If it is possible, how many times will the Beaver have to turn right to get to his destination?

A) It is not possible to reach the goal in this way

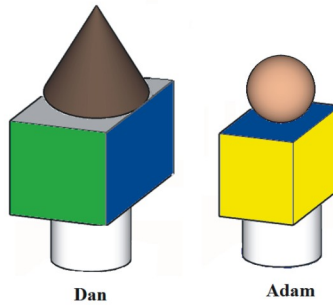
B) It is possible, if he turns right exactly 4 times

C) It is possible, if he turns right exactly 2 times

D) It is possible, if he turns right exactly 6 times

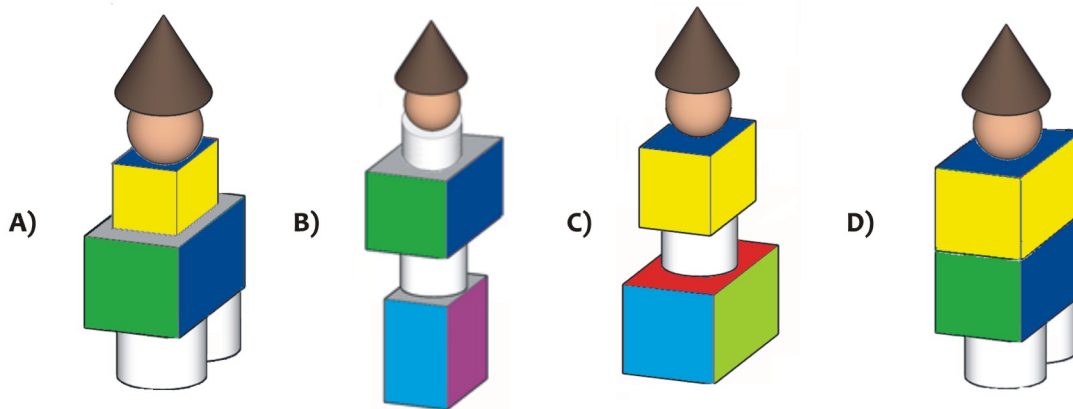
T16. Geometrical buildings

Dan and Adam used 6 geometrical shapes to build the following models.



Question / Challenge

The boys use all the 6 pieces to create a single model. Which of the following models could be that?

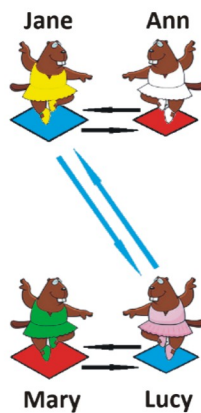


T17. Dance

Lucy, Mary, Ann and Jane are dancing. They move following the next two steps:

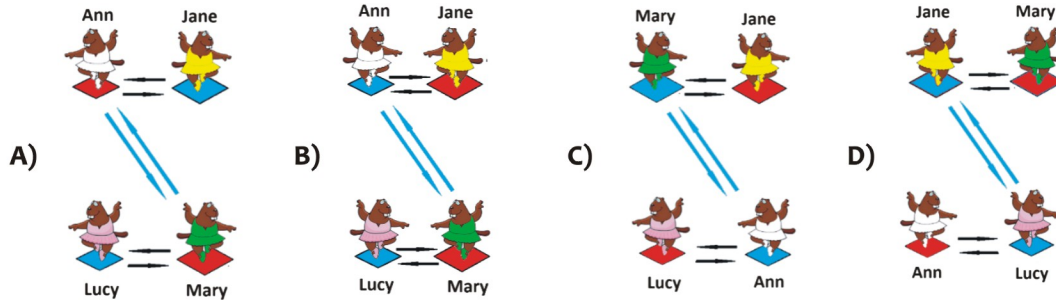
Step1: Interchange their place in pairs by following the black arrows.

Step2: Interchange their place in pairs by following the blue arrows.









Question / Challenge








If the girls perform simultaneously step 1 and then step 2, which of the following images will show the final position of the dancers?

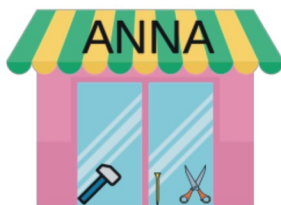


T18. Bridge Construction

Beaver Mark is a bridge builder. He needs a hammer , nails , wood planks  and ropes  to build one. In his village, there is a river which has no bridge, so he decided to build one so that all beavers can cross the river safely.

After checking his warehouse, he realized he already has a hammer  and ropes , but he doesn't have any of the other items he needs for the bridge. Luckily, there are 3 stores in his village where he can get the things he wants:

- Anna sells hammers , nails  and scissors 
- Martha sells wood planks  and bricks 
- Joanna sells ropes  and paint 



Question / Challenge

If Mark wants to visit the fewest number of stores, which stores does Mark need to visit in order to be able to build the bridge?

- A) Anna's, Martha's and Joanna's stores
- B) Martha's store only
- C) Martha's and Joanna's stores only
- D) Anna's and Martha's stores only

T19. Letters

Lena and Ana use a secret system to write messages to each other. Ana asks Lena by text where she is going for her next holiday.

Ana answers "SWEDEN" but she writes it as:



Later Lena asks Ana about the homework their teacher set. She asked whether it was to read a book or to watch the news.

Question / Challenge

How would Ana reply in code if it was "NEWS"

- A) ☹️😊😊😊 ☹️😊😊😊 ☹️😊😊😊 ☹️😊😊😊
- B) 😊😊😊😊 ☹️😊😊😊 ☹️😊😊😊 ☹️😊😊😊
- C) 😊😊😊😊 ☹️😊😊😊 ☹️😊😊😊 ☹️😊😊😊
- D) ☹️😊😊😊 ☹️😊😊😊 ☹️😊😊😊 ☹️😊😊😊

T20. The lost gold ingot

One day, thieves steal many gold ingots from the vault of the beaver bank. Beaver policemen immediately start their investigations. They manage to find out that the thieves hid the treasure in three of the eight neighboring houses in Bamboo Lane. Before the policemen set out to retrieve the ingots, they draw a map, on which they mark the eight houses one by one with 1 or 0.

A house marked with the digit 1 contains gold ingots, a house marked with the digit 0 contains no gold ingot.



The houses where the thieves hid the gold ingots are arranged in this way:



Question / Challenge

Which of the following sequences of the digits 1 and 0 do the beaver policemen write on the map?

- A) 10001001
- B) 10011000
- C) 01100001
- D) 10010000

T21. Encoding

Albert accidentally pressed a key on the keyboard and the computer started typing incorrectly.

Question / Challenge

When Albert typed the word "BEAVER" he gets "B5A65R". What will he get if he writes the word "BRAVE"?

A) BA56E

B) BR6AV

C) BRA56

D) BRA65

